



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,847	12/21/2000	Jung Min Song	P-168	6513

34610 7590 02/20/2004

FLESHNER & KIM, LLP
P.O. BOX 221200
CHANTILLY, VA 20153

EXAMINER

BAYAT, ALI

ART UNIT	PAPER NUMBER
----------	--------------

2625

DATE MAILED: 02/20/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/740,847

Applicant(s)

SONG ET AL.

Examiner

Ali Bayat

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-18 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4,6,7.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 13, line 2, the phrase "describes number of the subordinate color space" is not clear to the Examiner, also in claim 13, line 5, the phrase "describes number of bin" is not clear to the Examiner. Further claims 14-18 are rejected under 35 U.S.C. 112, second paragraph, because they are depending for rejected claim 13.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aono et al. (U.S. 5,049,986) in view of Ganapathy et al. (Pub. No. U.S. 2003/0044062).

In regard to claim 1, Aono provides for a color quantization descriptor structure for performing quantization of a color space (col.5 lines 62-66) in order to search a multimedia based on contents, in which quantization description information of the color space has a tree structure (Fig.5 col.7 lines 39-41) divided into a plurality of superior

Art Unit: 2625

color spaces (Fig.4, col.7 lines 1-10, note R, G, B or parent color spaces) and subordinate color spaces (Fig.5 note levels 1-3, col. 7 lines 2-41, also note child color-spaces) when color information is described as the information representing a feature of an image (col.6 lines 17-19, note frequency of colors used in the image). Aono does not specifically provide for searching a multimedia based on contents. However Ganapathy provides for limitation above (page 2, left col. Lines 1-7). It would have been obvious to a person of ordinary skill in the art at time the invention was made to incorporate the teaching of Ganapathy with the system and method of Aono. Because “ a major advantage of a pattern retrieval and matching system in accordance with the invention is that it eliminates the need for selecting the visual primitives for image retrieval and expecting the user to assign weights to them, as required in most current systems”, page 2, left col. Lines 27-31.

With regard to claim 2, see claim 1 above. It recites similar limitations as claim 2. Hence it is similarly analyzed and rejected.

As to claim 3, Aono provides for a color space quantization descriptor structure, wherein the quantization description information comprises information for representing uniform quantization or non-uniform quantization of the subordinate color spaces (col.4 lines 54-55, note not uniformly distributed in the color-space).

With regard to claim 4, Aono provides for a color space quantization descriptor structure, wherein the subordinate color space structure of the quantization description information constitutes a certain set of consecutive color spaces (Fig. 5 levels 1-3, col.7 lines 2-41).

Art Unit: 2625

In regard to claim 5, Aono provides for a color space quantization descriptor structure, wherein the subordinate color space structure of the quantization description information performs a scalable quantization description in order of volume of limit range of the color spaces within the certain set (Fig.5 level 1, col.7 lines 55-60, note weighing-factor).

As to claim 6, Aono provides for a color space quantization descriptor structure (col.5 lines 62-66), and subordinate color spaces (Fig.5 note levels 1-3, col. 7 lines 2-41, also note child color-spaces), further provides for non-uniform quantization descriptor information (col.4 lines 54-55, note not uniformly distributed in the color-space). But does not specifically provide for uniform quantization description information. However in the same field of endeavor Ganapathy provides for, uniform quantization description information (page 3, right col. Lines 38-45).

With regard to claim 7, see claim 1 above. It recites similar limitation as claim 7. Except for uniform quantization and non-uniform quantization (page 3, right col. Lines 38-45). Hence it is similarly analyzed and rejected.

As to claim 8, Aono provides for a color space quantization descriptor information, wherein the quantization description information of the color space further comprises information for representing the number of components constituting the color space (col.7 lines 3-6, note parent color space R, G, B, refers to the number of components, which is 3).

In regard to claim 9, Aono provides for a color space quantization descriptor structure (col.5 lines 62-66), wherein the quantization description information of the

Art Unit: 2625

color space further comprises information for representing the limit range of the each divided color space (Fig.4 col.6 lines 64-67).

With regard to claim 10, Aono provides for a color space quantization descriptor structure (col.5 lines 62-66), wherein the quantization description information of the color space further comprises information for representing the division number of the color space when the uniform quantization is represented (col.9 line 62-col.7 line 6, see also Fig.'s 25 and 28).

As to claim 11. See claims 9 and 10. They recite similar limitations as claim 11. Except for representing the pertinent axis of the color space (Fig.4 note R, G, B axis). Hence they are similarly analyzed and rejected.

Allowable Subject Matter

3. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowable Subject Matter

4. Claims 13-18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Other Cited References

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2625

U.S. patent 6,463,173 to Tretter is cited for system and method for histogram based image contrast enhancement.

Pub. No.: US 2001/0017940 to Kim et al. is cited for content-based multimedia retrieval system and method thereof.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Bayat whose telephone number is 703-306-5915. The examiner can normally be reached on M-Thur 9:00-7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-3085246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ali Bayat *AB*
Patent examiner
Group Art Unit 2625
2/14/04

Timothy M. Johnson
TIMOTHY M. JOHNSON
PRIMARY EXAMINER